

Application No. 09/874,593
Response to Office Action

Customer No. 01933

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 2 and 5-8 were rejected under 35 USC 102 as being anticipated by USP 6,559,888 (newly cited "Doron"), and claims 3 and 4 were rejected under 35 USC 103 as being obvious in view of the combination of Doron and USP 6,259,825 (previously cited "Yamazaki").¹ These rejection, however, are respectfully traversed.

Re: Claim 2

According to the present invention as recited in independent claim 2, a printer apparatus is provided for printing an image based on image data of a captured image. As recited in claim 2, the printer apparatus comprises: imaging condition detection means for detecting an imaging condition of the captured image; pre-print process means for performing a pre-print process for the image data of the captured image in accordance with the imaging condition; and print means for printing the image based on the image data processed by the pre-print process means. And as recited in claim 2, the imaging condition detection means

¹ It is respectfully pointed out that since claim 7 depends from claim 3, it should have been included in the rejection of claims 3 and 4, rather than the rejection of claims 2, 5, 6 and 8.

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detects the imaging condition based on information relating to the imaging condition, and the information relating to the imaging condition is added to the image data of the captured image.

The Examiner contends that zoom effect view finder arrangement 43 of Doron corresponds to the imaging condition detection means of claim 2, and that the zoom in switch 30 corresponds to the pre-print process means of claim 2, and the Examiner asserts that column 5, line 60 to column 6, line 67 of Doron discloses that the imaging condition detection means (zoom effect viewfinder arrangement 43) detects the imaging condition based on information relating to the imaging condition, and that the information relating to the imaging condition is added to the image data of the captured image.

It is respectfully pointed out, however, that the zoom effect view finder arrangement 43 of Doron includes a lens system 44 for simulating digital zoom that would otherwise be displayed in an LCD viewfinder mode (and that is actually being performed digitally). And it is respectfully pointed out that the zoom in switch 30 of Doron merely triggers a zoom in operation.

That is, Doron discloses a system in which, if the optical zoom of a camera is exhausted, for example, digital zoom is engaged to continue a zoom operation that has been instructed by

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a user. For example, if the optical zoom is only capable of 2X zoom, but a 3X zoom is desired, the 2X optical zoom is multiplied by a 1.5X digital zoom to achieve a 3X effective (optical \times digital) zoom. See, for example, Tables A-C in columns 7 and 8 of Doron.

Doron also recognizes that the LCD display 38 of the digital camera consumes battery power. Therefore, Doron provides a technique whereby the optical viewfinder accurately shows an image that will be captured, even when digital zoom is being performed. To accomplish this, Doron provides a secondary lens system 44 for the zoom effect optical viewfinder. The secondary lens system 44 of Doron is capable of zooming at a same zoom level as the primary lens system 14 through which the image is captured, up to a limit of the optical zoom of the primary lens system 14. When the primary lens system 14 stops moving, but zooming is continued using digital zoom, the secondary lens system 44 continues to perform zooming so that the user sees through the viewfinder the image that will be captured at the effective (optical \times digital) zoom. See, for example, column 5, line 45 to column 7, line 45 of Doron. Thus, according to Doron, the effective zoom can be visualized even if the optical viewfinder is used to view a subject to be photographed.

As can be clearly seen from the above explanation of the zoom effect optical viewfinder 43 of Doron, the viewfinder 43 is

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merely driven to operate in accordance with an instructed zoom amount so that the effective zoom can be visualized. And it is respectfully submitted that Doron clearly does not disclose, teach or suggest that the viewfinder 43 detects an imaging condition of the captured image.

In addition, it is respectfully submitted that Doron clearly does not disclose, teach or suggest that the imaging condition is detected based on information relating to the imaging condition, and that the information relating to the imaging condition is added to the image data of the captured image, in the manner of the present invention as recited in claim 2. In this connection, it is noted that column 5, line 60 to column 6, line 67 of Doron cited by the Examiner merely describes the combination of optical and digital zoom and the use of the secondary lens system 44 to visualize a subject image at an effective zoom.

Zoom in switch 30 of Doron, moreover, is merely used to input a zoom in command (see column 5, lines 60-63 and column 6, lines 61-67), which controls operation of the lens system of the viewfinder (and the primary lens system) that the Examiner contends corresponds to the imaging condition detection means for detecting an imaging condition of the captured image as recited in claim 2. In addition, it is respectfully pointed out that the zoom in switch 30 of Doron controls zooming for capturing an image. According to the present invention, by contrast, the

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pre-print process means performs a pre-print process for the image data of the captured image in accordance with the imaging condition.

Thus, it is respectfully the zoom in switch 30 of Doron clearly cannot logically be considered to correspond to the pre-print process means for performing a pre-print process for the image data of the captured image in accordance with the imaging condition, as recited in claim 2.

Re: Claim 3

According to the present invention as recited in independent claim 3, a printer apparatus is provided for effecting printing based on image data of a captured image. As recited in claim 3, the printer apparatus comprises: imaging sensitivity detection means for detecting an imaging sensitivity used for the captured image; noise removal process means for performing a noise removal process for the image data of the captured image prior to the printing; and control means for controlling the noise removal process means in accordance with the imaging sensitivity. And as recited in claim 4 depending from claim 3, the noise removal performance is enhanced as the imaging sensitivity increases.

The Examiner contends that Doron discloses detecting imaging sensitivity at column 5, lines 45-51 thereof. However, the cited portion of Doron relates to visualizing an effective zoom via the

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viewfinder 43, as described above with respect to claim 2, rather than to detecting an imaging sensitivity (ISO sensitivity, as defined in the specification).

In addition, it is respectfully submitted that even if Doron were considered to disclose detecting imaging sensitivity, the Examiner has acknowledged that Doron does not disclose noise removal process means for performing a noise removal process for the image data of the captured image prior to the printing, and control means for controlling the noise removal process means in accordance with the imaging sensitivity. For this reason the Examiner has cited Yamazaki to supply the missing teachings of Doron.

It is respectfully pointed out, however, that as pointed out in the Amendment filed on June 22, 2005, Yamazaki merely discloses subjecting a prescanned image to two resolution transformations: a first resolution transformation that does not include noise reduction, for producing an image with a high resolution, and a second resolution transformation that does include noise reduction and that produces an image having a medium or low resolution.

It is respectfully submitted that none of the portions of Yamazaki and Doron replied upon by the Examiner disclose, teach or suggest any link between the detection of the image sensitivity and the operation of the noise removal process.

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It is respectfully submitted, therefore, that even if Doron and Yamazaki were combinable as suggested by the Examiner, the resulting combination still would not achieve or render obvious control means for controlling the noise removal process means in accordance with the imaging sensitivity, as recited in independent claim 3.

Re: Claim 5

According to the present invention as recited in independent claim 5, a printer apparatus is provided for effecting printing based on image data of a captured image. As recited in claim 5, the printing apparatus comprises: imaging zoom detection means for detecting a condition of use of an imaging zoom used for the captured image; print zoom means for enlarging an image to be printed on a print film; and control means for limiting a magnification of the image to be printed on the print film, in accordance with the condition of use of the imaging zoom.

In a similar manner to the rejection of claim 2, the Examiner contends that the zoom effect view finder arrangement 43 of Doron corresponds to the imaging zoom detection means of claim 5, and that the zoom in switch 30 corresponds to the print zoom means of claim 5, and that column 5, line 60 to column 6, line 67 of Doron discloses the control means of claim 5.

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It is respectfully pointed out, however, that just as the zoom effect view finder arrangement 43 of Doron does not correspond to the imaging condition detecting means of claim 2, the viewfinder 43 does not correspond to imaging zoom detection means for detecting a condition of use of an imaging zoom used for the captured image as recited in claim 5.

In addition, it is respectfully pointed out that the zoom in switch 30 of Doron is for controlling zooming in on a subject image to be photographed, not for enlarging an image to be printed on a print film, as recited in claim 5.

Still further, it is respectfully submitted that column 5, line 60 to column 6, line 67 of Doron does not even remotely suggest control means for limiting a magnification of the image to be printed on the print film, in accordance with the condition of use of the imaging zoom. While the cited portion of Doron mentions a limit to optical zooming and that the digital zooming stages are finite in number, Doron does not disclose limiting the magnification of an image to be printed on the print film based on a zoom condition of use at the camera.

That is, if the viewfinder 43 of Doron were considered to correspond to the imaging zoom detection means of claim 5 as asserted by the Examiner, column 5, line 60 to column 6, line 67 of Doron clearly still does not disclose limiting a magnification of a printed image, based on a zoom condition of the viewfinder

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43. Indeed, the cited portion of Doron clearly does not even remotely suggest that the zooming by the viewfinder 43 has any impact on limiting a zoom condition at the processing system 9 (external to the camera).

* * * * *

In view of the foregoing, it is respectfully submitted that the present invention as recited in each of independent claims 2, 3 and 5, as well as claims 4 and 6-8 respectively depending therefrom, clearly patentably distinguishes over Doron and Yamazaki, taken singly or in any combination, under 35 USC 102 as well as under 35 USC 103.

Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,



Douglas Holtz
Reg. No. 33,902

Frishauf, Holtz, Goodman & Chick, P.C.
220 Fifth Avenue - 16th Floor
New York, New York 10001-7708
Tel. No. (212) 319-4900
DH:iv